

ABSTRACT OF THE DISCLOSURE

The invention provides methods and compositions relating to intracellular delivering of agents to eukaryotic cells. The compositions include microbial delivery vehicles such as nonvirulent bacteria comprising a first gene encoding a nonsecreted foreign cytotoxin operably linked to a heterologous promoter and a second gene encoding a different foreign agent. The foreign agent may be a nucleic acid or protein, and is frequently bioactive in and therapeutic to the target eukaryote. In addition, the invention provides eukaryotic cells comprising the subject nonvirulent bacteria and nonhuman eukaryotic host organisms comprising such cells.